

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: BÖGEL, Andreas, et al. Docket: 102147-200
Serial No.: N/A Art Unit: N/A
Filed: August 6, 2001 Examiner: N/A
Assignee: OLIN CORPORATION
Title: SILVER CONTAINING COPPER ALLOY



Certificate of Mailing

Date of Deposit 8/06/01.

I hereby certify under 37 CFR 1.8(a) that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to Commissioner for Patents, Washington, DC 20231.

Signed: _____

Name: Gregory S. Rosenblatt

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

Commissioner for Patents
U.S. Patent and Trademark Office
Washington, DC 20231

Dear Sir:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, please find enclosed an Information Disclosure Statement, Form PTO-1449 and one copy of each cited reference. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.
- ☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.

- ☐ a. Each item of information contained on Form PTO-1449 filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(1); and no fee is required under 37 C.F.R. §1.17(p).
- ☐ b. No item of information cited on Form PTO-1449 filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(2); and no fee is required under 37 C.F.R. §1.17(p).
- ☐ Please charge Deposit Account No. 23-1665 in the amount of \$240.00 in payment of the fee under 37 C.F.R. §1.17(p). Two additional copies of this Information Disclosure Statement are enclosed.
- ☐ A check in the amount of \$240.00 is attached hereto in payment of the fee under 37 C.F.R. §1.17(p).
- ☐ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. It is hereby requested that the Information Disclosure Statement be considered.
- ☐ a. Each item of information contained on Form PTO-1449 filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(1).
- ☐ b. No item of information cited on Form PTO-1449 filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any

individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(2).

☐ Please charge Deposit Account No. 23-1665 in the amount of \$130.00 in payment of the fee under 37 C.F.R. §1.17(i)(1). Two additional copies of this Information Disclosure Statement are enclosed.

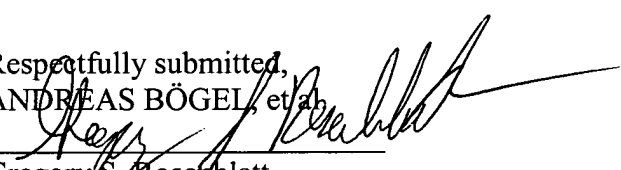
☐ A check in the amount of \$130.00 is attached hereto in payment of the fee under 37 C.F.R. §1.17(i)(1).

The undersigned represents that the closest art of which he is presently aware has been cited herein and understands that this statement shall not be construed as a representation that no better art exists or that a thorough patentability search has been made.

The undersigned further represents that the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

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Respectfully submitted,
ANDREAS BÖGEL, et al.



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jc997 U.S. PTO
09/923137
08/06/01

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Signed: _____

Name: Gregory S. Rosenblatt

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
U.S. Patent and Trademark Office
Washington, DC 20231

Dear Sir:

In keeping with the duty of candor and good faith owed to the Patent and Trademark Office, Applicant wishes to make of record the items on attached PTO Form 1449 which were considered in the preparation of the subject application. Copies of the items are provided in accordance with 37 CFR §1.98.

1. U.S. Patent No. 2,033,709, entitled "Copper Alloy", by F.R. Hensel, et al. issued March 10, 1936..
2. U.S. Patent No. 2,127,596, entitled "Alloy", by F.R. Hensel, et al., issued August 23, 1938.

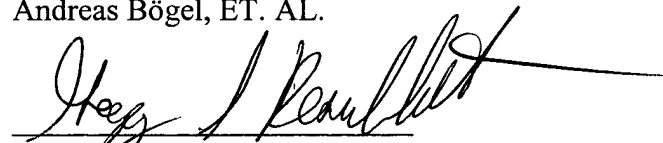
3. U.S. Patent No. 3,677,745, entitled "Copper Base Composition", by W.L. Finlay, et al., issued July 18, 1972.
4. U.S. Patent No. 3,778,318, entitled "Copper Base Composition", by W.L. Finlay, et al., issued Dec. 11, 1973.
5. U.S. Patent No. 4,362,579, entitled "High-Strength-Conductivity Copper Alloy", by Tsuji, issued December 7, 1982.
6. U.S. Patent No. 4,605,532, entitled "Copper Alloys Having An Improved Combination of Strength and Conductivity", by Knorr, et al., issued August 12, 1986.
7. U.S. Patent No. 4,612,166, entitled "Copper-Silicon-Tin Alloys Having Improved Cleanability", by Brock, et al., issued September 16, 1986.
8. U.S. Patent No. 4,678,637, entitled "Copper-Chromium-Titanium-Silicon Alloy and Application Thereof", by Duerrschnabel, W., et al. issued July 7, 1987.
9. U.S. Patent No. 4,810,468, entitled "Copper-Chromium-Titanium-Silicon-Alloy" by Duerrschnabel, et al., issued March 7, 1989.
10. U.S. Patent No. 5,004,520, entitled "Method of Manufacturing Film Carrier", by Tsuji, et al., issued April 2, 1991.
11. U.S. Patent No. 5,024,814, entitled "Copper Alloy Having Excellent Hot Rollability and Excellent Adhesion Strength of Plated Surface Thereof When Heated", by Futatasuka, et al., issued June 18, 1991.

12. U.S. Patent No., 5,032,358, entitled "Resistance Welding Electrode of Chalcogene Bearing Copper Alloy", by Helenius, issued July 16, 1991.
13. U.S. Patent No. 5,306,465, entitled "Copper Alloy Having High Strength and High Electrical Conductivity", by Caron, et al., issued April 26, 1994.
14. U.S. Patent No. 5,370,840, entitled "Copper Alloy Having High Strength and High Electrical Conductivity", by Caron, et al., issued December 6, 1994.
15. U.S. Patent No. 5,486,244, entitled "Process for Improving the Bend Formability of Copper Alloys", by Caron, et al., issued January 23, 1996.
16. U.S. Patent No. 5,565,045, entitled "copper Base Alloys Having Improved Bend Formability", by Caron, et al., issued October 15, 1996.
17. U.S. Patent No. 5,601,665, entitled "Process for Improving The Bend Formability of Copper Alloys", by Caron, et al., issued February 11, 1997.
18. U.S. Patent No. 5,833,920, entitled "Copper Alloy for Electronic Parts, Lead-Frame, Semiconductor Device and Connector", by Nakanishi, et al., issued November 10, 1998.
19. German Patent No. DE 196 00 864 C2 by Bogel, Andreas, et al., issued February 10, 2000.
20. "Standard Test Method for Bend Test for Formability of Copper Alloy Spring Material", Designation: B820-98, pages 802-804.

21. "Standard Test Method for Semi-Guided Bend Test for Ductility of Metallic Materials", Designation: E 290-92, pages 432-435.
22. "Quality Function Deployment" from the Perspective of Competitive Advantage, by Edwin B. Dean, website: <http://mijuno.larc.nasa.gov/dfc/qfd.html>, 7/23/00.
23. "Comprehensive QFD" from the Perspective of Competitive Advantage by Edwin B. Dean, website: <http://mijuno.larc.nasa.gov/dfc/qfd/cqfd.html>, 7/23/00.
24. "Silver-Bearing Copper", Walter L. Finlay, M.Sc., D. Eng., Corinthian Editions, 1968, pages 7-71.

The undersigned represents that the closest art of which he is presently aware has been cited herein and understands that this statement shall not be construed as representation that no better art exists or that a thorough patentability search has been made.

Respectfully submitted,
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